Introduction
- What is the basis of science
- Theory vs. hypothesis
- Qualitative vs. quantitative
- Between vs. within subject comparison
- Choosing a control group
  - As close as possible to experimental group
- Observer-expectancy effect
  - Double blind experiments
- Basic layout of an empirical article

Ethics
- History
- Milgram's experiment
- IRB
  - Beneficence
  - Respect for persons
  - Justice
- Informed consent

Variables
- What is a variable?
- DV and IV
- Operational definition
- Types of variables
  - Nominal, ordinal, interval, and ratio
- Correlation vs. causation
- Mediation and moderation

Statistics (no regression)
- Descriptive vs. inferential statistics
- Descriptive statistics for different variable types
- Chi-square
  - Nominal data
- Normal distribution
- Mean, median, mode
- Standard deviation and variance
- Sampling distributions
- T-test: when to use each:
  - One-sample, independent samples, paired samples t-test
- Correlation
- Effect size
- How to report r and t

Qualitative research
- Naturalistic observation
  - Cast study
- Survey questions

- o Question wording
- o Types of responses
- Types of interviews

Sampling
- Sample vs. population
- Probability sampling
  - o Simple, stratified, and cluster
- Nonprobability sampling
  - o Haphazard (convenience), purposive, quota
- Evaluating samples

Psychometric levels
- Reliability
  - o Types (e.g., split-half and inter-rater)
- Validity
  - o Types (e.g., content and convergent)

Factorial designs
- What is a main effect
- What is an interaction
- Be able to determine both based off of a factorial table or graph